

Appendix A:

***AISWMD Local MSW
Information Form***

Association of Indiana Solid Waste Management Districts
“Pay-As-You-Throw” Technical Assistance Project
Municipal Solid Waste Information Form
(Summer 2001)

Municipalities participating in the AISWMD’s “Pay-As-You-Throw” Technical Assistance Project are required to provide information relating to current municipal solid waste programs. This document seeks the comprehensive information necessary to accurately calculate solid waste volume and revenue projections for rate-setting scenario generation. ***Use data from the most recent year if 2001 annual data are not available.***

For questions regarding this form, please contact Jeanann Georgas at (219) 663-8526.

PART A: Program Features and Community Characteristics

Municipal Solid Waste Information

Collection Arrangement:

Current collection arrangement (circle one):

Municipal

Contract/Franchise

Private Subscription

Note: If municipality anticipates changing the collection arrangement as part of PAYT implementation, indicate preference for new arrangement:

Municipal

Contract/Franchise

Private Subscription

Pay-As-You-Throw Preference, if known (circle):

Full-cost Unit-pricing

Disposal only unit

Modified-pricing

Variable-sized Can

MSW Volume:

Tonnage landfilled in 2001

Tonnage recycled in 2001

Tonnage composted in 2001 (optional)

Tonnage diverted in 2001 from other programs (list)

Total MSW volume (in tons) for 2001

Population Characteristics

Number of people served in 2001

Number of households served in 2001

Expected Population Growth

Expected annual increase in number of households (optional) _____

Community Characteristics

Non-residential solid waste service customers (if applicable)

Number of businesses served _____

Percentage of businesses with dumpster service _____ %

Percentage of businesses recycling _____ %

Number of institutions (churches, schools, etc.) _____

Percentage of institutions with dumpster service _____ %

Percentage of institutions recycling _____ %

PART B: 2001 MSW Program Costs

Note to Preparer: Include all MSW costs to be financed through the contractor-generated sample rate structures.

Fixed Trash Collection Costs for 2001

These expenses remain constant regardless of the amount of trash collected. Examples include administrative salaries, rent/building costs, debt service on vehicles.

Physical facilities (rent, debt service, maintenance, utilities, etc.) \$ _____

Salaries & benefits (administrative, collection personnel, etc.) \$ _____

Collection vehicle cost (trash & recyclables)

Debt service/amortization \$ _____

Maintenance \$ _____

Operation \$ _____

Contractor fees (if, applicable) \$ _____

Billing (personnel, computer, collections, postage, printing) \$ _____

Other fixed costs (list) _____ \$ _____

_____ \$ _____

_____ \$ _____

Total Fixed Trash Collection Costs: \$ _____

Variable Trash Collection Program Costs for 2001

These expenses vary with the amount of trash collected and disposed. These costs include disposal costs, transfer station costs, transportation costs associated with hauling trash to a landfill, etc.

Salaries & benefits \$ _____

Vehicle cost

Debt service or amortization \$ _____

Maintenance \$ _____

Operation \$ _____

Tipping fees (including any taxes, surcharges, etc.)
Tons collected _____
Tipping fee (per ton) \$ _____ \$ _____

If community has a contracted disposal fee minimum, list \$ _____

Other costs that vary with amount of trash \$ _____

Total Variable Cost for Trash Service \$ _____

Fixed Recycling Collection and Processing Costs for 2001

These costs remain constant regardless of the volume of recyclables collected.

Contracted recycling costs, if applicable \$ _____

Physical facilities (rent/debt service, utilities) \$ _____

Salaries & benefits \$ _____

Vehicle cost

Debt service or amortization \$ _____

Maintenance \$ _____

Operation \$ _____

Equipment (processing or sorting equipment) \$ _____

Other Recycling program fixed costs (education, promotion, etc.) \$ _____

Total Fixed Recycling Costs \$ _____

Variable Recycling Collection and Processing Costs for 2001

These cost vary with the volume of recyclables collected and processed.

Salaries and benefits \$ _____

Vehicle costs (vehicles transporting materials to reprocessors)

Debt service or amortization \$ _____

Maintenance \$ _____

Operation \$ _____

| | |
|---|----------|
| Equipment costs (balers, compactors, forklift/ "Bobcat") | |
| Debt service or amortization | \$ _____ |
| Maintenance | \$ _____ |
| Operation | \$ _____ |
| Contractor fees, if applicable | \$ _____ |
| Other recycling program variable costs (brokers fees, bins) | \$ _____ |
| Total Variable Recycling Costs | \$ _____ |

Additional MSW Programs Costs for 2001

Please identify additional program costs, if any, that your community wishes to finance using the rate structure. Examples include education programs, promotional events, special collection programs, etc.

List:

| | |
|-------|----------|
| _____ | \$ _____ |
| _____ | \$ _____ |
| _____ | \$ _____ |
| _____ | \$ _____ |

PART C: MSW Program Revenues for 2001

Identify the annual amount of revenue generated from each of the following sources.

General Fund resources \$ _____

User Fees (identify rates charged & households served)

Rate(s): _____ Households(#) _____ \$ _____

_____ Households(#) _____ \$ _____

_____ Households(#) _____ \$ _____

Total User Fee Annual Revenue \$ _____

Special Tax Levy for solid waste service

Total Special Tax Levy Revenue: \$ _____

Other revenue sources: \$ _____

Total Revenue from Other Sources \$ _____

Total MSW program revenue from all sources \$ _____

| |
|--|
| |
|--|

Appendix B:

***Lawrence County SWMD
Disposal PAYT Spreadsheet***

Lawrence County SWMD "Pay-As-You-Throw"
10-Apr-00

Community Characteristics:

| Community | Pop | Households | MSW volume(tons) | Wkly set-out(lbs) | Disposal |
|-----------|-------|------------|------------------|-------------------|--------------|
| Bedford | 14667 | 5989 | 5818 | 37.36337 | \$201,000.00 |
| Mitchell | 4956 | 1988 | 2000 | 38.6937 | \$71,000.00 |
| Oolitic | 1492 | 539 | 727 | 51.87669 | \$26,000.00 |
| Unincorp | 24474 | 9510 | 9637 | 38.57074 | \$342,000.00 |
| Total | 45589 | 18026 | 18182 | 41.62613 | \$640,000.00 |
| | 45539 | 17587 | | | |

Indicators:

| | Disp/hh | Wkly disp |
|----------|------------|-----------|
| Bedford | \$33.56153 | \$0.64541 |
| Mitchell | \$35.71429 | \$0.68881 |
| Oolitic | \$48.23748 | \$0.92764 |
| Uninc. | \$35.96215 | \$0.69158 |
| Avg. | \$38.37 | \$0.74 |

Unaccounted:

Bulk items
Loose loads

Minimum Unit Disposal Cost(based on 1st qtr. 2000 volume):

| | |
|-------------------|-------------|
| Total MSW(T) | 3423.23 |
| Total MSW(lbs.) | 6846460 |
| Unit size(lbs) | 30 |
| No. of units | 228215.3333 |
| Disposal cost/ton | \$35.50 |
| Disposal cost/lb. | 0.01775 |
| Unit cost(30 lb.) | 0.5325 |

Potential Disposal Cost Increases:

Assume 5% annual increase in tipping fee

| Year: | Tip fee(T) | Disp./lb | Unit cost(30 lbs.) |
|-------|------------|----------|--------------------|
| 2001 | \$37.28 | 0.01864 | \$0.56 |
| 2002 | \$39.14 | 0.01957 | \$0.59 |
| 2003 | \$41.10 | 0.02055 | \$0.62 |
| 2004 | \$43.15 | 0.02158 | \$0.65 |
| 2005 | \$45.31 | 0.02265 | \$0.68 |

* At a minimum, the per unit disposal cost should be \$0.5325.

If units were sold in packages of 10 units, minimum cost is \$5.33

Per unit disposal cost does not include bag price, sales tax or other charges.

Appendix C:

Model PAYT Timeline

Association of Indiana Solid Waste Management Districts
“Pay-As-You-Throw” Technical Services Project
Model Preliminary Timeline

June 1, 2000

This timeline represents a model preliminary listing of the activities associated with introducing “Pay-As-You-Throw” financing and the anticipated accomplishment dates. Once a community begins the formal planning process, the activities and dates may be revised based on specific conditions. Timeline may be expedited if tasks are completed ahead of schedule.

| <u>Month</u> | <u>Activity</u> |
|---------------------|--|
| 1-2 | Municipality to provide information for rate structure calculations: Population and household information MSW Demand for 1999 MSW Program costs for 1999 and start-up year Preferences for PAYT options: (1) Disposal unit (container & size) (2) Rate structure option (unit, variable-size, modified) (3) Billing system |
| 2-3 | Consultant to develop PAYT rate alternatives Consultant to calculate program revenues for various options |
| 4 | Consultant to make presentation on various rate structures and revenue projections. |
| 4-5 | Municipality to review and approve rate structure option Municipality to identify a PAYT start-up date |
| 5-9 | Consultant, Municipality and County SWMD jointly prepare for Implementation of PAYT financing: (1) Development of ordinances for rate structure, household requirements, etc. as required; (2) Development of educational materials, planning for promotional events, planning for public information activities; (3) Coordination with sticker/tag/bag/can manufacturer; (4) Plan for increased recyclables volume (capamunicipality & bins); (5) Establish sales outlet network for stickers/bags/cans; (6) Establish PAYT billing protocol; (7) Coordinate with businesses and institutions; (8) Establish in-house Customer Service Office for PAYT; and, (9) Designate “Rapid Response Team” for challenges. |

| <u>Month</u> | <u>Activity</u> |
|---------------------|---|
| 7 | Kick-off formal public information and promotional campaign |
| 9 | Introduce “Pay-As-You-Throw” Program monitoring activities to detect start-up problems and conduct “Rapid Response Team” activities where necessary. |
| 10 | Assess first month performance of PAYT <ol style="list-style-type: none">(1) MSW volume;(2) Revenue generation;(3) Recycling volume and processing;(4) Start-up challenges;(5) Make necessary modifications to address challenges. |
| 11 | Assess second month performance of PAYT <ol style="list-style-type: none">(1) MSW volume;(2) Revenue generation;(3) Recycling volume and processing;(4) Transitional challenges;(5) Make necessary modifications to address challenges. |
| 12 | Assess third month performance of PAYT <ol style="list-style-type: none">(1) MSW volume;(2) Revenue generation;(3) Recycling volume and processing;(4) Transitional challenges;(5) Make necessary modifications to address challenges. |
| 13 | Resume normal program operations <ol style="list-style-type: none">(1) Discontinue PAYT Customer Service Office(2) Discontinue “Rapid Response Team”(3) Continue program monitoring(4) Consultant to document PAYT program performance. |

Appendix D:

***City of Shelbyville
PAYT Spreadsheets***

WORKSHEET 1**City of Shelbyville MSW Information & PAYT Rate Alternatives****May 16, 2000***Data as reported by the City of Shelbyville***PART A:****MSW Characteristics**

| | |
|-------------------|--------|
| MSW Volume(Tons): | |
| Landfilled | 6,476 |
| Recycled | 937 |
| Composted | 604 |
| Leaves | 450 |
| Concrete | 280 |
| Total MSW | 8,747 |
| Diversion | 2,271 |
| Diversion rate | 25.96% |

Population Characteristics

| | |
|-----------------------|--------|
| Population | 16,400 |
| Households served | 6,350 |
| Exp. annual growth | 120 |
| Household Projections | |
| 2000 | 6,350 |
| 2001 | 6470 |
| 2002 | 6590 |
| 2003 | 6710 |
| 2004 | 6830 |
| Household size: | |
| 2.58 | |

MSW Volume Indicators:

| | |
|--------------------------------|----------|
| Trash/household(lbs.) | |
| Annual | 2,039.69 |
| Weekly | 39.22 |
| Diversion/household | |
| Annual | 715.28 |
| Weekly | 13.76 |
| Weekly set-out: | |
| Assume each can weighs 30 lbs. | |
| 1.31 | |

PART B:**Trash Collection Costs:**

| | |
|----------------------|-----------|
| Salaries & benefits | \$203,253 |
| Vehicle depreciation | \$54,000 |
| Total | \$257,253 |

Household MSW Indicators:

| | |
|---------------------------------|---------|
| Trash collection cost/household | |
| Annual | \$40.51 |
| Monthly | \$3.38 |

Trash Disposal Variable Costs:

| | |
|---------------------|-----------|
| Salaries & benefits | \$29,000 |
| Disposal | \$199,396 |
| Total | \$228,396 |
| Total Trash Cost | \$485,649 |

Trash disposal cost/household

| | |
|---------|---------|
| Annual | \$35.97 |
| Monthly | \$3.00 |

Total Trash cost/household

| | |
|---------|---------|
| Annual | \$76.48 |
| Monthly | \$6.37 |

Recycling Fixed Costs:

| | |
|-----------------------|----------|
| Contractor | \$98,229 |
| Total Recycling costs | \$98,229 |

Recycling cost/household

| | |
|---------|---------|
| Annual | \$15.47 |
| Monthly | \$1.29 |

Yard Waste Costs:

| | |
|------------------------|----------|
| Salaries & benefits | \$62,000 |
| Disposal | \$11,400 |
| Total yard waste costs | \$73,400 |

Yard waste cost/household

| | |
|---------|---------|
| Annual | \$11.56 |
| Monthly | \$0.96 |

Total MSW Costs: \$657,278**MSW Cost/household**

| | |
|---------|----------|
| Annual | \$103.51 |
| Monthly | \$8.63 |

Fixed/Variable Cost Analysis**Fixed costs:**

| | |
|-----------|-----------|
| Trash | \$257,253 |
| Recycling | \$98,229 |
| Total | \$355,482 |

Variable costs:

| | |
|----------|-----------|
| Disposal | \$228,396 |
|----------|-----------|

WORKSHEET 2**City of Shelbyville PAYT Rate Alternatives(no change in MSW volume)**

May 30, 2000

Fixed/Variable Cost Analysis**Households****Avg. weekly set-out**

| | | | |
|-----------------|-----------|------|-------|
| Fixed costs: | | 2000 | 6,350 |
| Trash | \$257,253 | 2001 | 6,470 |
| Recycling | \$98,229 | 2002 | 6,590 |
| Total | \$355,482 | 2003 | 6,710 |
| | | 2004 | 6,830 |
| Variable costs: | | | |
| Disposal | \$228,396 | | |
| Total MSW Costs | \$583,878 | | |

1.31

Number of Cans (30 lbs):

Tons x 2000/30 lbs
 431,733 car 431,733
 1 can/week 330,200
 extra cans 101533

Alternative Rate Scenarios**Projected Revenue*****Alternative 1: Fixed Costs & Disposal Fee******Alternative 1:***

| | | |
|-------------------|--|--------|
| Monthly Basic Fee | Formula: fixed costs/(households x 12 months) | \$4.67 |
| Per can fee | disposal costs/number of cans | \$0.53 |

| | |
|-------------------|--------------|
| Monthly Basic Fee | \$355,482.00 |
| Can disposal fees | \$228,396.00 |
| Total | \$583,878.00 |

Alternative 2: Modified Including 1 Can/week***Alternative 2:***

| | | |
|--------------------|---|--------|
| Monthly Basic Fee | Alt. 1 Basic plus 4.3 cans per month disposal | \$6.96 |
| Additional can fee | Alt. 1 "per can" fee | \$0.53 |

| | |
|---------------------|--------------|
| Monthly Basic Fee | \$530,164.87 |
| Additional can fees | \$53,713.13 |
| Total | \$583,878.00 |

Alternative 3: Disposal Only Option***Alternative 3:***

| | | |
|----------------------|-------------------------------|--------|
| No Monthly Basic Fee | | |
| Per can fee | disposal costs/number of cans | \$0.53 |

| | |
|---------------|--------------|
| Disposal fees | \$228,396.00 |
|---------------|--------------|

Alternative 4: Second Can Disposal Only***Alternative 4:***

| | | |
|---|--------------------------------|--------|
| No Monthly Basic Fee, includes 1 can per week | | |
| Additional Can Fee | disposal costs/additional cans | \$2.25 |
| Note: This option asks only those throwing away < 1 can to finance all disposal costs | | |

| | |
|---------------|--------------|
| Disposal fees | \$228,396.00 |
|---------------|--------------|

Alternative 5: Unit- Pricing (all costs covered through sale of disposal stickers)***Alternative 5:***

| | |
|-------------|--------|
| Per can fee | \$1.35 |
|-------------|--------|

| | |
|--------------|--------------|
| Sticker fees | \$583,878.00 |
|--------------|--------------|

WORKSHEET 3**City of Shelbyville PAYT Rate Alternatives(assume 40% reduction in MSW volume)**

May 30, 2000

| <u>Fixed/Variable Cost Analysis</u> | | <u>Households</u> | <u>Avg. weekly set-out</u> | <u>MSW Projection</u> |
|-------------------------------------|-----------|-------------------|------------------------------|-----------------------|
| Fixed costs: | | 2000 | 6,350 | 0.7844942 |
| Trash | \$257,253 | 2001 | 6,470 | |
| Recycling | \$98,229 | 2002 | 6,590 | |
| Total | \$355,482 | 2003 | 6,710 | |
| | | 2004 | 6,830 | |
| Variable costs: | | | | |
| Disposal(tipping &pers) \$148,638 | | | Disposal charge: | Tons x 2000/30 lbs. |
| | | | Ton \$30.79 | 259040 total cans |
| | | | pound 0.015395 | 257556 weekly |
| | | | 30-lb can 0.46185 plus pers. | 1484 additional |
| Total MSW Costs \$504,120 | | | | \$0.57 |

Alternative Rate Scenarios**Projected Revenue****Alternative 1: Fixed Costs & Disposal Fee****Alternative 1:**

| | | |
|-------------------|--------------------------------------|--------|
| Formula: | | |
| Monthly Basic Fee | fixed costs/(households x 12 months) | \$4.67 |
| Per can fee | disposal costs/total number of cans | \$0.57 |

| | |
|-------------------|--------------|
| Monthly Basic Fee | \$355,482.00 |
| Can disposal fees | \$148,638.00 |
| Total | \$504,120.00 |

Alternative 2: Modified Including 1 Can/week**Alternative 2:**

| | | |
|--------------------|---|--------|
| Monthly Basic Fee | Alt. 1 Basic plus 4.3 cans per month disposal | \$7.15 |
| Additional can fee | Alt. 1 "per can" fee | \$0.57 |

| | |
|---------------------|--------------|
| Monthly Basic Fee | \$544,951.84 |
| Additional can fees | \$851.52 |
| Total | \$545,803.37 |

Note: Each household charged for 1 can per week, but this exceeds expected generation, this option generates revenues exceeding cost projections

Alternative 3: Disposal Only Option**Alternative 3:**

| | | |
|----------------------|-------------------------------|--------|
| No Monthly Basic Fee | | |
| Per can fee | disposal costs/number of cans | \$0.57 |

| | |
|---------------|--------------|
| Disposal fees | \$148,638.00 |
|---------------|--------------|

Alternative 4: Second Can Disposal Only**Alternative 4:**

| | | |
|---|--|----------|
| No Monthly Basic Fee, includes 1 can per week | | |
| Additional Can Fee | disposal costs/additional cans (1,484) | \$100.16 |

| | |
|---------------|--------------|
| Disposal fees | \$148,638.00 |
|---------------|--------------|

Note: This option asks only those throwing away <1 can to finance all disposal costs; current data do not indicate how many many households would be involved

Alternative 5: Unit- Pricing (all costs covered through sale of disposal stickers)**Alternative 5:**

| | | |
|-------------|--------------------------------|--------|
| Per can fee | Total MSW costs/number of cans | \$1.95 |
|-------------|--------------------------------|--------|

| | |
|--------------|--------------|
| Sticker fees | \$504,120.00 |
|--------------|--------------|

Appendix E:

***Town of Utica
MSW Contract Bid Analysis
PAYT Spreadsheets***

Alternate 3: Base Response - Contractor to do Quarterly Billing & Collections
Unlimited trash collection service, Contractor to do billing.

| Bidder | Year 1 | Year 2 | Two-Year | Yrly Avg. |
|---------------------|-------------|-------------|-------------|-------------|
| | 340 | 340 | | |
| Industrial Disposal | \$7.26 | \$7.26 | \$59,241.60 | \$7.26 |
| | \$29,620.80 | \$29,620.80 | | \$29,620.80 |
| Rumpke of Indiana | \$8.75 | \$8.75 | | \$8.75 |
| | \$35,700.00 | \$35,700.00 | \$71,400.00 | \$35,700.00 |
| Waste Management | \$11.00 | \$11.00 | | \$11.00 |
| | \$44,880.00 | \$44,880.00 | \$89,760.00 | \$44,880.00 |

Alternate 4: Uniform Container Option - Contractor to do Quarterly Billing and Collections
Collection and disposal of up to 65 gallons of trash using a uniform container, extra fee for additional trash cans; contractor to do billing.

| Bidder | Year 1 | Year 2 | Two-Year | Yrly Avg. |
|---------------------|-------------------|-------------------|--------------|-------------|
| | 340 Toter/sticker | 340 Toter/sticker | | |
| Industrial Disposal | \$9.31 | \$9.31 | | \$9.31 |
| | \$37,984.80 | \$37,984.80 | \$75,969.60 | \$37,984.80 |
| Rumpke of Indiana | \$8.75 | \$8.75 | | \$8.75 |
| | \$35,700.00 | \$35,700.00 | \$71,400.00 | \$35,700.00 |
| Waste Management* | \$13.00 | \$13.00 | | \$13.00 |
| | \$53,040.00 | \$53,040.00 | \$106,080.00 | \$53,040.00 |

Does not comply with the information sought for this alternate.

Town of Utica Refuse Bid Analysis

Dec 2000

Prepared by Jeannann Georgas, consultant for AISWMD

Alternate 1: Base Response - Town to do the billing

Current service, includes unlimited trash, Town responsible for billing

| Bidder | Year 1 | Year 2 | Two-Year | Yrly Avg. |
|---------------------|------------------------------|------------------------------|-------------|------------------------|
| Industrial Disposal | 340 \$6.53 \$26,642.40 | 340 \$6.53 \$26,642.40 | \$53,284.80 | \$26,642.40 \$6.53 |
| Rumpke of Indiana | \$8.25 \$33,660.00 | \$8.25 \$33,660.00 | \$67,320.00 | \$33,660.00 \$8.25 |
| Waste Management | \$10.00 \$40,800.00 | \$10.00 \$40,800.00 | \$81,600.00 | \$40,800.00 \$10.00 |

Alternate 2: Uniform 90-96 gallon toter - Town to do the billing

Includes up to approximately 90 gallons of trash; extra fee for additional trash; Town responsible for billing

| Bidder | Year 1 | Year 2 | Two-Year | Yrly Avg. |
|---------------------|------------------------------|------------------------------|--------------|------------------------|
| Industrial Disposal | 340 \$8.53 \$34,802.40 | 340 \$8.53 \$34,802.40 | \$69,604.80 | \$34,802.40 \$8.53 |
| Rumpke of Indiana | \$8.25 \$33,660.00 | \$8.25 \$33,660.00 | \$67,320.00 | \$33,660.00 \$8.25 |
| Waste Management* | \$13.00 \$53,040.00 | \$13.00 \$53,040.00 | \$106,080.00 | \$53,040.00 \$13.00 |

*Does not comply with specific information sought for this alternative

Appendix F:

***City of South Bend
PAYT Spreadsheets***

WORKSHEET 1
City of South Bend MSW Information & PAYT Rate Alternatives
January 2001
Data as reported by the City of South Bend

PART A:

MSW Characteristics

MSW Volume(Tons):

Landfilled 35,469
 Recycled 6,250
 Composted 25,000
 Leaves 0
 Concrete 0

Total MSW

66,719

Diversion

31,250

Diversion rate

48.84%

Population Characteristics

Population 100,000
 Households served 38,000
 Exp. annual growth

Household Projections

2000 38,000
 2001 38,000
 2002 38,000
 2003 38,000
 2004 38,000

Household size:

2.63

Businesses served:

270

MSW Volume Indicators:

Trash/household(lbs.)
 Annual 1,866.79
 Weekly 35.90

Diversion/household
 Annual 1,844.74
 Weekly 31.63

Weekly set-out

Assume each can weighs 30 lbs.
 1.20

WORKSHEET 2

City of South Bend PAYT Rate Alternatives(no change in MSW volume)
(Revised March 16, 2001)

Fixed/Variable Cost Analysis

| | | Households |
|-----------------|-------------|-------------|
| Fixed costs: | | 2000 38,000 |
| Trash | \$2,450,186 | 2001 38,000 |
| Recycling | | 2002 38,000 |
| Total | \$2,450,186 | 2003 38,000 |
| | | 2004 38,000 |
| Variable costs: | | |
| Disposal | \$609,982 | |
| Total MSW Costs | \$3,060,168 | |

Proposed Container Distribution

| | |
|-----------|-------|
| 35 gallon | 3300 |
| 65 gallon | 9900 |
| 95 gallon | 19800 |
| | 33000 |

Estimated Equipment Expense (four-year)

| Size: | Unit: | Mo. expense: |
|-----------|---------|--------------|
| 35 gallon | \$28.00 | \$0.58 |
| 65 gallon | \$37.00 | \$0.77 |
| 95 gallon | \$45.00 | \$0.94 |

Avg. weekly set-out(35 gallon cans)
1,181,119

Number of Cans (35 lbs.):

| | |
|--------------------|-----------|
| Tons x 2000/35 lbs | |
| Total cans | 2,026,800 |
| 1 can/week | 1,716,000 |
| extra cans | 310,800 |

| Sample Distribution: | Households | Extra stickers |
|----------------------|------------|-------------------------|
| 1 can | 30% | 2 can limit 3 can limit |
| 2 cans | 30% | 9,900 0 0 |
| 3 cans | 30% | 9,900 0 0 |
| 3 or more | 10% | 9,900 514,800 0 |
| Extra stickers | | 33,000 343,200 171,600 |
| | | 33,000 858,000 171,600 |

MSW Volume(Tons)

| | |
|------------|-------|
| Landfilled | 35469 |
| Recycled | 6250 |
| Composted | 25000 |
| Leaves | 0 |
| Concrete | 0 |
| Total | 66719 |

Disposal Cost(2000)

| | |
|------------|---------|
| Cost per T | \$17.00 |
| per lb | 0.0085 |

Estimated Disposal Cost Per Container

| Size: | Disp. unit: | Mo. expense: |
|-----------|-------------|--------------|
| 35 gallon | 0.2975 | 1.27925 |
| 65 gallon | 0.5525 | 2.37575 |
| 95 gallon | 0.8075 | 3.47225 |

Alternative Rate Scenarios (Not Including Recycling fees or Senior discounts)

Rate Scenario: Formula for calculating costs:

Alternative 1: Fixed Costs & Disposal Fee

| | | | | |
|-------------------|--------------------------------------|--------|-------------------|----------------|
| Monthly Basic Fee | fixed costs/(households x 12 months) | \$6.19 | Revenue: | \$2,450,186.00 |
| Per can fee | disposal costs/number of cans | \$0.26 | Can disposal fees | \$516,834.00 |
| | | | Total | \$2,967,020.00 |

Alternative 2: Modified Including 1 Can/week

| | | | | |
|--------------------|---|--------|---------------------|----------------|
| Monthly Basic Fee | Alt. 1 Basic plus 4.3 cans per month disposal | \$7.29 | Monthly Basic Fee | \$2,887,766.00 |
| Additional can fee | Alt. 1 "per can" fee | \$0.26 | Additional can fees | \$79,254.00 |
| | | | Total | \$2,967,020.00 |

Alternative 3: Variable-Sized Container

| | | | | | | |
|--------------------|---|-----------------|--------|---------------|------------------|----------------|
| Monthly Basic Fee: | (fixed costs/(households x 12 months)) + disposal fee | Plus equip. fee | Rates: | Distribution: | Monthly revenue: | Total Revenue: |
| 35 gallon level | \$6.19 | \$7.47 | \$0.58 | \$8.05 | \$300 | \$26,564.74 |
| 65 gallon level | \$6.19 | \$8.56 | \$0.77 | \$9.33 | 9900 | \$92,405.83 |
| 95 gallon level | \$6.19 | \$9.66 | \$0.94 | \$10.60 | 19800 | \$209,822.35 |
| | | | | | Total | \$328,792.92 |
| | | | | | | \$3,945,515.00 |

NOTE: Alternative 3 charges for disposal limit each month even though households may not generate full container each set-out. Revenue in excess of costs due to disposal charges in excess of actual trash set-out.

Alternative 4: Two-Can Limit

| | | | |
|--------------------------------|--|---------------|----------------|
| Monthly Basic Fee: | (fixed costs/households x 12)) + disposal fee of 65 gallons of trash | Monthly fees | \$3,390,983.00 |
| Two-Can level | \$6.19 | Disposal fees | \$218,790.00 |
| Additional cans(disposal only) | Stickers: 858,000 | Total | \$3,609,773.00 |

Alternative 5: Three-Can Limit

| | | | |
|--------------------|--|--------------|----------------|
| Monthly Basic Fee: | (fixed costs/(households x 12)) + disposal of 95 gallons trash | Monthly fees | \$3,825,197.00 |
| Three-Can Level | \$6.19 | Sticker fees | \$43,758.00 |
| Additional cans | Stickers: 171,600 | Total | \$3,868,955.00 |

NOTE: Alternatives 4 & 5 raise revenues in excess of costs since all households are charged as though they generate 2 or 3 cans of trash per week. Actual average disposal set-out is 1.18 cans per week.

Alternative 6: Unit-Based Pay-by-the-Bag/Can

| | | | |
|--------------------------|--|-----------|--------|
| All inclusive unit rate: | (fixed costs + disposal costs)/((landfill * 2000) / 35 gallon container) | Unit Fee: | \$1.51 |
| Costs: | 35 gallon Units: | | |
| \$3,060,168.00 | 2,026,800 | | |

Waste Generation Levels:

| | Households | Wkly units | Tot units | Revenues: |
|--------|------------|------------|-----------|----------------|
| 1 can | 9,900 | 9,900 | 514,800 | \$777,271.80 |
| 2 cans | 9,900 | 19,800 | 1,029,600 | \$1,554,543.60 |
| 3 cans | 13,200 | 39,600 | 2,059,200 | \$3,109,087.20 |
| Total | 33,000 | 69,300 | 3,603,600 | \$5,440,902.61 |

NOTE: This alternate assumes households will throw away trash bags/cans at same weekly rate with unit pricing. If schedule is altered to reflect anticipated trash volume reduction, unit fee increases due to constant fixed costs spread over lower # of units.

ADDITIONAL VARIABLE-SIZE CONTAINER RATE SCENARIOS

Alternative 3: Variable-Sized Container

Monthly Basic Fee: (fixed costs/households x 12 months) + disposal fee

| | | | | | | | |
|-----------------|--------|--------|--------|-----------------|--------|-------------|----------------|
| 35 gallon level | \$6.19 | \$1.28 | \$7.47 | Plus equip. fee | \$0.58 | Annual Rev. | \$318,776.90 |
| 65 gallon level | \$6.19 | \$2.38 | \$8.56 | | \$0.77 | | \$1,108,869.90 |
| 95 gallon level | \$6.19 | \$3.47 | \$9.66 | | \$0.94 | | \$2,517,868.20 |
| | | | | | | | \$3,945,515.00 |

Alternative 3:

| | | | |
|---------|-------|--------------|----------------|
| Rates: | Dist. | Monthly Rev. | Annual Rev. |
| \$8.05 | 3300 | \$26,564.74 | \$318,776.90 |
| \$9.33 | 9900 | \$92,405.63 | \$1,108,869.90 |
| \$10.60 | 19800 | \$209,822.35 | \$2,517,868.20 |
| | Total | \$328,792.92 | \$3,945,515.00 |

Alternative 3A:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$4.50 | \$1.28 | \$5.78 | \$0.580 | \$251,856.00 |
| 65 gallon level | \$4.50 | \$2.38 | \$6.88 | \$0.770 | \$908,820.00 |
| 95 gallon level | \$4.50 | \$3.47 | \$7.97 | \$0.94 | \$2,117,016.00 |
| | | | | | \$3,277,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$6.36 | 3,300 | \$20,986.00 |
| \$7.65 | 9,900 | \$75,735.00 |
| \$8.91 | 19,800 | \$176,418.00 |
| | Total | \$273,141.00 |

Alternative 3B:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$5.00 | \$1.28 | \$6.28 | \$0.580 | \$271,656.00 |
| 65 gallon level | \$5.00 | \$2.38 | \$7.38 | \$0.770 | \$968,220.00 |
| 95 gallon level | \$5.00 | \$3.47 | \$8.47 | \$0.94 | \$2,235,816.00 |
| | | | | | \$3,475,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$6.86 | 3,300 | \$22,638.00 |
| \$8.15 | 9,900 | \$80,685.00 |
| \$9.41 | 19,800 | \$186,318.00 |
| | Total | \$289,641.00 |

Alternative 3C:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$5.50 | \$1.28 | \$6.78 | \$0.580 | \$291,456.00 |
| 65 gallon level | \$5.50 | \$2.38 | \$7.88 | \$0.770 | \$1,027,620.00 |
| 95 gallon level | \$5.50 | \$3.47 | \$8.97 | \$0.94 | \$2,354,616.00 |
| | | | | | \$3,673,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$7.36 | 3,300 | \$24,288.00 |
| \$8.65 | 9,900 | \$85,635.00 |
| \$9.91 | 19,800 | \$196,218.00 |
| | Total | \$306,141.00 |

Alternative 3D:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$6.00 | \$1.28 | \$7.28 | \$0.580 | \$311,256.00 |
| 65 gallon level | \$6.00 | \$2.38 | \$8.38 | \$0.770 | \$1,087,020.00 |
| 95 gallon level | \$6.00 | \$3.47 | \$9.47 | \$0.94 | \$2,473,416.00 |
| | | | | | \$3,871,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$7.86 | 3,300 | \$25,938.00 |
| \$9.15 | 9,900 | \$90,585.00 |
| \$10.41 | 19,800 | \$206,118.00 |
| | Total | \$322,641.00 |

Alternative 3E:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$6.50 | \$1.28 | \$7.78 | \$0.580 | \$331,056.00 |
| 65 gallon level | \$6.50 | \$2.38 | \$8.88 | \$0.770 | \$1,146,420.00 |
| 95 gallon level | \$6.50 | \$3.47 | \$9.97 | \$0.94 | \$2,582,216.00 |
| | | | | | \$4,069,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$8.36 | 3,300 | \$27,588.00 |
| \$9.65 | 9,900 | \$95,535.00 |
| \$10.91 | 19,800 | \$216,018.00 |
| | Total | \$339,141.00 |

Alternative 3F:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$7.00 | \$1.28 | \$8.28 | \$0.580 | \$350,856.00 |
| 65 gallon level | \$7.00 | \$2.38 | \$9.38 | \$0.770 | \$1,205,820.00 |
| 95 gallon level | \$7.00 | \$3.47 | \$10.47 | \$0.94 | \$2,711,016.00 |
| | | | | | \$4,267,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$8.86 | 3,300 | \$29,238.00 |
| \$10.15 | 9,900 | \$100,485.00 |
| \$11.41 | 19,800 | \$225,918.00 |
| | Total | \$355,641.00 |

Alternative 3G:

| | | | | | |
|--------------------|------------|----------|--------------|-------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Equip. cost | Annual Rev. |
| 35 gallon level | \$7.50 | \$1.28 | \$8.78 | \$0.580 | \$370,656.00 |
| 65 gallon level | \$7.50 | \$2.38 | \$9.88 | \$0.770 | \$1,265,220.00 |
| 95 gallon level | \$7.50 | \$3.47 | \$10.97 | \$0.94 | \$2,829,816.00 |
| | | | | | \$4,465,692.00 |

Rev'd rates

| | | |
|-------------|--------------|--------------|
| Acct. Dist. | Monthly Rev. | Annual Rev. |
| \$9.36 | 3,300 | \$30,888.00 |
| \$10.65 | 9,900 | \$105,435.00 |
| \$11.91 | 19,800 | \$235,818.00 |
| | Total | \$372,141.00 |

Full-Cost of Service Flat-Rate Alternatives

Alternative FC1:

| | | | |
|-----------------------------------|--------------|-------------|----------------|
| Flat-rate unlimited trash service | Monthly Rate | Monthly rev | Annual Rev. |
| | \$6.71 | \$33,000 | \$2,657,514.32 |

| | | | |
|--------|--------|--------|--------|
| Accts. | 33,000 | \$0.00 | \$0.00 |
|--------|--------|--------|--------|

ADDITIONAL VARIABLE-SIZE CONTAINER RATE SCENARIOS
Not including container equipment cost

Alternative 3A:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$4.50 | \$1.28 | \$5.78 | \$5.78 | 3,300 | \$19,074.00 | \$228,888.00 |
| 65 gallon level | \$4.50 | \$2.38 | \$6.88 | \$6.88 | 9,900 | \$68,112.00 | \$817,344.00 |
| 95 gallon level | \$4.50 | \$3.47 | \$7.97 | \$7.97 | 19,800 | \$157,806.00 | \$1,893,672.00 |
| | | | | Total | | \$244,992.00 | \$2,939,904.00 |

Alternative 3B:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$5.00 | \$1.28 | \$6.28 | \$6.28 | 3,300 | \$20,724.00 | \$248,688.00 |
| 65 gallon level | \$5.00 | \$2.38 | \$7.38 | \$7.38 | 9,900 | \$73,062.00 | \$876,744.00 |
| 95 gallon level | \$5.00 | \$3.47 | \$8.47 | \$8.47 | 19,800 | \$167,706.00 | \$2,012,472.00 |
| | | | | Total | | \$261,492.00 | \$3,137,904.00 |

Alternative 3C:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$5.50 | \$1.28 | \$6.78 | \$6.78 | 3,300 | \$22,374.00 | \$268,488.00 |
| 65 gallon level | \$5.50 | \$2.38 | \$7.88 | \$7.88 | 9,900 | \$78,012.00 | \$936,144.00 |
| 95 gallon level | \$5.50 | \$3.47 | \$8.97 | \$8.97 | 19,800 | \$177,606.00 | \$2,131,272.00 |
| | | | | Total | | \$277,992.00 | \$3,335,904.00 |

Alternative 3D:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$6.00 | \$1.28 | \$7.28 | \$7.28 | 3,300 | \$24,024.00 | \$288,288.00 |
| 65 gallon level | \$6.00 | \$2.38 | \$8.38 | \$8.38 | 9,900 | \$82,962.00 | \$995,544.00 |
| 95 gallon level | \$6.00 | \$3.47 | \$9.47 | \$9.47 | 19,800 | \$187,506.00 | \$2,250,072.00 |
| | | | | Total | | \$294,492.00 | \$3,533,904.00 |

Alternative 3E:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$6.50 | \$1.28 | \$7.78 | \$7.78 | 3,300 | \$25,674.00 | \$308,088.00 |
| 65 gallon level | \$6.50 | \$2.38 | \$8.88 | \$8.88 | 9,900 | \$87,912.00 | \$1,054,844.00 |
| 95 gallon level | \$6.50 | \$3.47 | \$9.97 | \$9.97 | 19,800 | \$197,406.00 | \$2,368,872.00 |
| | | | | Total | | \$310,992.00 | \$3,731,904.00 |

Alternative 3F:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$7.00 | \$1.28 | \$8.28 | \$8.28 | 3,300 | \$27,324.00 | \$327,888.00 |
| 65 gallon level | \$7.00 | \$2.38 | \$9.38 | \$9.38 | 9,900 | \$92,862.00 | \$1,114,344.00 |
| 95 gallon level | \$7.00 | \$3.47 | \$10.47 | \$10.47 | 19,800 | \$207,306.00 | \$2,487,672.00 |
| | | | | Total | | \$327,492.00 | \$3,929,904.00 |

Alternative 3G:

| | | | | | | | |
|--------------------|------------|----------|--------------|-------------|-------------|--------------|----------------|
| Monthly Basic Fee: | Basic rate | Disposal | Service Rate | Rev'd rates | Acct. Dist. | Monthly Rev. | Annual Rev. |
| 35 gallon level | \$7.50 | \$1.28 | \$8.78 | \$8.78 | 3,300 | \$28,974.00 | \$347,688.00 |
| 65 gallon level | \$7.50 | \$2.38 | \$9.88 | \$9.88 | 9,900 | \$97,812.00 | \$1,173,744.00 |
| 95 gallon level | \$7.50 | \$3.47 | \$10.97 | \$10.97 | 19,800 | \$217,206.00 | \$2,606,472.00 |
| | | | | Total | | \$343,992.00 | \$4,127,904.00 |

Full-Cost of Service Flat-Rate Alternatives
Alternative FC1:

Alternative 5: Three-Can Limit

Monthly Basic Fee: (fixed costs/(households x 12)) + disposal of 95 gallons trash \$6.19 \$3.47 \$9.66
 Three-Can Level
 Additional cans Stickers: 171,600 \$0.26

Alternative 5:

Monthly fees \$3,825,197.00
 Sticker fees \$43,758.00
 Total \$3,868,955.00

NOTE: Alternatives 4 & 5 raise revenues in excess of costs since all households are charged as though they generate 2 or 3 cans of trash per week. Actual average disposal set-out is 1.18 cans per week.

Alternative 6: Unit-Based Pay-by-the-Bag/Can

All inclusive unit rate: (fixed costs + disposal costs)/((landfill * 2000) / 35 gallon container)
 Costs: 35 gallon Units: Unit Fee: \$1.51
 \$3,060,168.00 2,026,800

Waste Generation Levels:

| | Households | Wkly units | Tot units | Revenues: |
|--------|------------|------------|-----------|----------------|
| 1 can | 9,900 | 9,900 | 514,800 | \$777,271.80 |
| 2 cans | 9,900 | 19,800 | 1,029,600 | \$1,554,543.60 |
| 3 cans | 13,200 | 39,600 | 2,059,200 | \$3,109,087.20 |
| Total | 33,000 | 69,300 | 3,603,600 | \$5,440,902.61 |

NOTE: This alternate assumes households will throw away trash bags/cans at same weekly rate with unit pricing. If schedule is altered to reflect anticipated trash volume reduction, unit fee increases due to constant fixed costs spread over lower # of units.

Appendix G:

***City of Warsaw
PAYT Spreadsheets***

MSW Cost and "Pay-As-You-Throw" Rate Scenarios

DATE: July 2001
 COMMUNITY: City of Warsaw

WORKSHEET 1

PART A:

MSW Characteristics

| | |
|-------------------|---------|
| MSW Volume(Tons): | 4,867 |
| Landfilled | 0 |
| Recycled | 7,781 |
| Composted | 0 |
| Leaves | 0 |
| Concrete | 0 |
| Total MSW | 12,648 |
| Diversion | 7,781 |
| Diversion rate | 61.52% |
| Tipping fee(ton): | \$18.98 |

Population Characteristics

| | |
|-----------------------|--------|
| Population | 12,415 |
| Households served | 5,101 |
| Exp. annual growth | 2.00% |
| Household Projections | |
| 2000 | 5,203 |
| 2001 | 5,307 |
| 2002 | 5,413 |
| 2003 | 5,521 |
| 2004 | 5,632 |
| Household size: | |
| 2.43 | |
| Businesses served: | 11 |

MSW Volume Indicators:

| | |
|-----------------------|----------|
| Trash/household(lbs.) | |
| Annual | 1,908.12 |
| Weekly | 36.69 |
| Diversion/household | |
| Annual | 3,050.77 |
| Weekly | 58.67 |

Weekly set-out:
 Assume each can weighs 30 lbs.
 1.22

PART B:

Trash Collection Costs:

| | |
|----------------------|------------------|
| Physical facilities | \$2,500 |
| Salaries & benefits | \$109,027 |
| Vehicle depreciation | \$30,500 |
| Vehicle maint. | \$5,183 |
| Vehicle operation | \$13,475 |
| Contractor | |
| Billing | |
| Other: | |
| Liability ins. | |
| Licenses | |
| Admin. fees | |
| Total | \$160,686 |

Variable Trash Collection Costs:

| | |
|--------------------|----------------|
| Seasonal personnel | \$8,453 |
| Total | \$8,453 |

Trash Disposal Variable Costs:

| | |
|---------------------|-----------------|
| Salaries & benefits | \$92,362 |
| Disposal other | |
| Total | \$92,362 |

| | |
|-------------------------|------------------|
| Total Trash Cost | \$261,501 |
|-------------------------|------------------|

Recycling Fixed Costs:

City has no curbside recycling costs

| | |
|------------------------------|------------|
| Total Recycling costs | \$0 |
|------------------------------|------------|

Yard waste/Composting Costs:

| | |
|----------------------|----------|
| Salaries & benefits | \$59,224 |
| Vehicle depreciation | |
| Vehicle maintenance | \$2,062 |
| Vehicle operation | \$4,480 |
| Equipment | \$22,180 |
| Educ. & Promo. | \$1,500 |
| Contractor | \$13,000 |

| | |
|-------------------------|------------------|
| Total yard waste | \$102,426 |
|-------------------------|------------------|

Additional MSW Costs:

| | |
|---|------------------|
| Total add'l costs | \$0 |
| Total MSW Costs: | \$363,927 |
| Total MSW Costs less yard waste: | \$261,501 |

Household MSW Indicators:

| | |
|--|----------------|
| Trash collection cost/household | \$33.16 |
| Annual | |
| Monthly | \$2.76 |

Trash disposal cost/household

| | |
|---------|---------|
| Annual | \$18.11 |
| Monthly | \$1.51 |

Total Trash cost/household

| | |
|---------|---------|
| Annual | \$51.26 |
| Monthly | \$4.27 |

Recycling cost/household

| | |
|---------|--------|
| Annual | \$0.00 |
| Monthly | \$0.00 |

Yard waste/household

| | |
|---------|---------|
| Annual | \$20.08 |
| Monthly | \$1.67 |

MSW Cost/household (without yard waste)

| | |
|---------|---------|
| Annual | \$51.26 |
| Monthly | \$4.27 |

MSW Cost/household (including yard waste)

| | |
|---------|---------|
| Annual | \$71.34 |
| Monthly | \$5.95 |

Fixed/Variable Cost Analysis

| | |
|---------------------|------------------|
| Fixed costs: | |
| Trash | \$160,686 |
| Recycling | \$0 |
| Yard waste | \$102,426 |
| Total | \$263,112 |

| | |
|------------------------|------------------|
| Variable costs: | |
| Disposal | \$92,362 |
| Trash collection | \$8,453 |
| Total | \$100,815 |

| | |
|------------------|------------------|
| Total MSW | \$363,927 |
|------------------|------------------|

| | |
|----------------------------|---------------|
| Percentage variable | 27.70% |
| Percentage fixed | 72.30% |

Household Fixed costs:

| | |
|---------|---------|
| Annual | \$61.58 |
| Monthly | \$4.30 |

Household variable costs:

| | |
|---------|---------|
| Annual | \$19.76 |
| Monthly | \$1.65 |

PART C: MSW Program Revenues

| Revenue sources: | |
|-------------------------|------------------|
| | Amount: |
| General Fund | \$333,400 |
| Trash user fees | \$0 |
| Recycling user fee | \$0 |
| Special levy | \$0 |
| Sale of recyclables | \$0 |
| Large item charges | \$0 |
| Other | \$0 |
| Total revenue | \$333,400 |

PART D: PAYT Rate Scenarios

Rates reflect current costs and current MSW volume; costs do not include yard waste program
PAYT Options

Option A: Unit-Based Pricing (pay-by-the-bag)

Total Program Costs / ((landfilled tonnage *2000 lbs.) / 30 lb.)

\$0.81 per bag or can

Rates
Per-unit-fee

Option B: Fixed & Variable cost component

Fixed component:

Monthly Rate

(Total fixed costs / number of households) / 12 months

\$4.30

Variable component:

Per unit fee:

(Total variable costs / bags and cans generated)

\$0.31

Bags generated: 324,445

Option C: Two-Can Limit with excess trash fee
Fixed component plus disposal for 2 cans trash

Monthly Rate:

(Option B Monthly rate)+ (Option B 2 cans fee x 4.3 weeks)

\$6.97

\$4.30

\$2.67

Excess Trash Can Fee:

\$0.31

Option D: Three-Can Limit with excess trash fee
Fixed component plus disposal for three cans/week

Monthly Rate:

(Option B monthly rate) + (Option B 3 cans fee x 4.3 weeks)

\$8.31

\$4.30

\$4.01

Excess Trash Fee:

\$0.31

Appendix H:

***Database of Indiana
PAYT MSW Programs***

Association of Indiana Solid Waste Management Districts
Summary of Indiana "Pay-As-You-Throw" Communities
(As of 5/28/2001)

Sorted by Alphabetically by Community

Self-reported data gathered from telephone interviews and/or written responses.

| <u>Community</u> | <u>Population</u> | <u>Households</u> | <u>Collection Arrangement</u> | <u>PAYT Type</u> | <u>Recycling</u> | <u>Financing</u> | <u>Contact Name</u> | <u>Phone</u> |
|---------------------------|-------------------|-------------------|-------------------------------|------------------|---------------------|------------------|--------------------------------|----------------|
| Adams County SWMD | 33,083 | 13,000 | Rural drop-off | Weight-ranges | Rural drop-off | | Hank Meyer | (219) 724-9971 |
| Akron, Town of | 1,069 | 150 | Municipal | Unit-based | Curbside & drop-off | User fees | Jill Runkle | (219) 893-4123 |
| Austin, Town of | 4,479 | 2,000 | Contract | Unit-based | curbside | User fees | Willard Terry | (812) 794-3670 |
| Bicknell, Town of | 3,195 | 1,547 | Municipal | Unit-based | Drop-off | User fees | Mayor Gordon Stinebaugh | (812) 735-3559 |
| Bloomington, City of | 66,743 | 26,000 | Municipal | Unit-based | Curbside | Combination | | |
| Brookville, Town of | 2,926 | 1,032 | Contract | Modified | Curbside | User fees | Alberta Sauerland | (765) 647-3322 |
| Brown County | 15,982 | 6,400 | Private drop-off | Unit-based | Drop-off | Private | Rebecca Baugh | (812) 988-0140 |
| Butler, City of | 2,846 | 875 | Contract | Can limit | Drop-off | User fees | | (219) 868-5881 |
| Crawford County SWMD | 10,582 | 4,200 | Rural drop-off | Unit-based | Drop-off | User fees | Tina Bowman | (812) 365-9419 |
| Crawfordsville, City of | 14,849 | 4,000 | Municipal | Modified | Curbside | Combination | Rod Jenkins | (765) 364-5166 |
| Delphi, City of | 2,790 | 1,100 | Municipal | Modified | Drop-off & curbside | Combination | Jay Scott | (765) 564-2353 |
| DuBois Co. SWMD | 39,682 | 13,000 | Rural drop-off | Unit-based | Drop-off | combination | Tommy Tomison | (812) 683-8379 |
| Elkhart, City of | 43,336 | 17,000 | Municipal | Modified | Curbside | Combination | | |
| Ferdinand, Town of | 2,519 | 600 | Municipal | Unit-based | curbside | combination | Matt Van Kirk | (812) 367-2282 |
| Fremont, Town of | 1,468 | 600 | Contract | Modified | drop-off | User fees | Jim Penner | (219) 495-7805 |
| Garrett, City of | 5,574 | 2,200 | Contract | Modified | drop-off | User fees | Jenny diPaulo | (219) 357-3836 |
| Greencastle, City of | 9,913 | 2,600 | Contract | Modified | curbside | User fees | Mayor Nancy Michael | (765) 653-3100 |
| Hamilton, Town of | 950 | 400 | | Can limit | curbside | User fees | Patricia Ackerman, Clerk-Treas | (219) 488-3607 |
| Hammond, City of | 77,363 | 28,000 | Municipal | Container | curbside | Combination | Barbara Hooper | (219) 853-6622 |
| Hanover, Town of | 3,866 | 860 | Municipal | Unit-based | curbside | User fees | Lucy Anderson | (812) 866-2131 |
| Hebron, Town of | 3,724 | 1,100 | Contract | Modified | curbside | User fees | Fred Siminski, Clerk-Treasurer | (219) 966-4641 |
| Jasper, City of | 11,792 | 4,700 | Municipal | Unit-based | curbside | Combination | Jasper Street Dept. | (812) 482-1130 |
| Ligonier, Town of | 3,617 | 1,200 | Contract | Modified | drop-off | User fees | Helen Grecki | (219) 894-4113 |
| Logansport, City of | 16,588 | 6,350 | Municipal | Container | curbside | Combination | Mike Fincher | (219) 732-9253 |
| Madison, City of | 12,826 | 4,054 | Municipal | Can/bag limit | curbside | User fees | Mayor Al Huntington | (812) 265-8300 |
| Merrillville, Town of | 31,290 | 12,500 | Subscription | Variable subscr. | Curbside & drop-off | subscription | Shawn Pettit | (219) 769-5711 |
| Monroe County SWMD | 115,130 | 35,000 | Rural drop-off | Bags | drop-off | combination | Monroe County SWMD | (812) 349-2020 |
| North Manchester, Town of | 6,406 | 2,500 | Contract | | drop-off | Combination | | |
| Perry County SWMD | 19,350 | 7,700 | Rural drop-off | Bags | Curbside & drop-off | User fees | Karen Stonewall | (812) 547-9787 |

| | | | | | | | | |
|----------------------|--------|--------|----------------|------------|----------------------|----------------|------------------------------|--------------------|
| Pike County SWMD | 12,882 | 5,000 | Rural drop-off | Bags | drop-off | Combination | Susan Haislip | (812) 354-2924 |
| Renssalaer, City of | 5,520 | 2,200 | Municipal | Unit-based | curbside | Combination | Mike Murphy | (219) 866-7833 |
| Rising Sun, City of | 2,077 | 1,000 | Municipal | Modified | curbside | Combination | Rae L. Gipson | (812) 438-3340 |
| Scott County | 22,939 | 9,100 | Rural drop-off | Bags | drop-off | User fees | Iva Gasaway | (812) 752-7914-fax |
| Scottsburg, City of | 6,218 | 2,500 | Municipal | Unit-based | curbside (bi-weekly) | Combination | Millard Moore | (812) 752-6431 |
| Spencer County SWMD | 20,937 | 8,000 | Rural drop-off | Bags | drop-off | Combination | Deborah Steinkamp | (812) 362-7401 |
| Syracuse, Town of | 2,984 | 1,000 | Contract | Modified | drop-off | combination | Brian Redshaw, Town Manager | (219) 457-3348 |
| Tell City, City of | 8,039 | 3,200 | Municipal | Unit-based | curbside | User fees | Mayor Bill Goffinett | (812) 547-5111 |
| Topeka, Town of | 1,051 | 400 | Contract | Can limit | drop-off | Property taxes | DeWayne Bontrager | (812) 593-2300 |
| Vevay, Town of | 1,729 | 700 | Contract | Modified | curbside | User fees | Donna Graham | (812) 427-3131 |
| Whitley County SWMD | 30,459 | 12,000 | Rural drop-off | Unit-based | drop-off | | William Grube | (219) 244-5303 |
| Winamac, Town of | 2,566 | 950 | Municipal | Can-limit | curbside | Property taxes | Jim Conner | (219) 946-3451 |
| Winfield, Town of | 796 | 450 | Contract | Modified | curbside | User fees | Brian Ridge, Contractor Rep. | (219) 662-8600 |
| Winona Lake, Town of | 4,400 | 1,418 | Contract | Modified | curbside | Property taxes | Retha Hicks | (219) 267-5783 |

Prepared by Jeanann Georgas

Population adjustments based on US Census projections for 1999.

(as of 5/28/01)

Appendix I:

***Indiana Modified PAYT
Rate Structure Spreadsheets***

MSW Cost and "Pay-As-You-Throw" Rate Scenarios

DATE: 08/01/2001
 COMMUNITY: City of Hammond

PART A:

MSW Characteristics

MSW Volume(Tons):
 Landfilled 28,834
 Recycled 4,271
 Composted 773
 Leaves 0
 Concrete 0

Population Characteristics

Population 87,000
 Households served 26,529

MSW Volume Indicator

Trash/household(lbs.)
 Annual 2,173.77
 Weekly 41.80

Diversion/household
 Annual 380.26
 Weekly 7.31

Total MSW 33,878

Diversion 5,044

Diversion rate 14.89%

Tipping fee(ton): \$39.88

Household size:

3.28

Weekly set-out:

Assume each can weigh

1.39

PART B:

Trash Collection Costs:

| | |
|----------------------|-------------|
| Physical facilities | \$0 |
| Salaries & benefits | \$1,743,229 |
| Vehicle depreciation | \$0 |
| Vehicle maint. | \$75,000 |
| Vehicle operation | \$125,000 |
| Contractor | \$0 |
| Billing | \$0 |
| Other: | \$0 |
| Liability ins. | \$0 |
| Licenses | \$0 |
| Admin. fees | \$0 |
| [other] | |
| [other] | |
| Total | \$1,943,229 |

Variable Trash Collection Costs:

| | |
|--------------------|-----|
| [Other] | \$0 |
| Seasonal personnel | \$0 |
| [Other] | \$0 |
| Total | \$0 |

Trash Disposal Variable Costs:

| | |
|---------------------|-------------|
| Salaries & benefits | \$1,150,000 |
| Disposal | \$1,150,000 |
| [other] | |
| [other] | |
| [other] | |
| Total | \$1,150,000 |

Total Trash Cost \$3,083,229

Recycling Fixed Costs:

| | |
|----------------------|-----------|
| Salaries & benefits | \$658,053 |
| Vehicle depreciation | \$57,000 |
| Vehicle maintenance | \$40,000 |
| Vehicle operation | \$40,000 |
| Equipment | |
| Educ. & Promo. | |
| Contractor | |
| Other | \$15,000 |

Total Fixed Recycling \$770,053

Recycling Variable Costs

| | |
|--------------------------|-----------|
| Salaries | |
| Equipment costs | |
| Contractor fees | |
| Total Recycling variable | \$0 |
| Total Recycling costs | \$770,053 |

Additional MSW Costs:

| | |
|---------------------|-------------|
| Special collections | \$0 |
| [other] | |
| [other] | |
| Total add'l costs | \$0 |
| Total MSW Costs: | \$3,863,282 |

Household MSW Indicators:

| | |
|---------------------------------|---------|
| Trash collection cost/household | \$73.25 |
| Annual | \$8.10 |
| Monthly | \$8.10 |

Trash disposal cost/household

| | |
|---------|---------|
| Annual | \$43.35 |
| Monthly | \$3.61 |

Total Trash cost/household

| | |
|---------|----------|
| Annual | \$116.60 |
| Monthly | \$9.72 |

Recycling fixed cost/household

| | |
|---------|---------|
| Annual | \$29.03 |
| Monthly | \$2.42 |

Recycling variable cost/household

| | |
|---------|---|
| Annual | 0 |
| Monthly | 0 |

| | |
|--------------------|----------|
| MSW Cost/household | \$145.62 |
| Annual | \$145.62 |
| Monthly | \$12.14 |

Fixed/Variable Cost Analysis

| | |
|--------------|-------------|
| Fixed costs: | \$1,943,229 |
| Trash | \$770,053 |
| Recycling | |

Total \$2,713,282

| | |
|------------------|-------------|
| Variable costs: | \$1,150,000 |
| Disposal | \$0 |
| Trash collection | \$0 |
| Recycling | \$0 |
| Total | \$1,150,000 |

| | |
|---------------------|-------------|
| Total MSW | \$3,863,282 |
| Percentage variable | 29.77% |
| Percentage fixed | 70.23% |

| | |
|------------------------|----------|
| Household Fixed costs: | \$102.28 |
| Annual | \$8.52 |
| Monthly | |

Household variable costs:

| | |
|---------|---------|
| Annual | \$43.35 |
| Monthly | \$3.61 |

PART C: MSW Program Revenues

| <u>Revenue sources:</u> | <u>Amount:</u> |
|--------------------------------|-----------------------|
| General Fund | \$0 |
| Trash user fees | \$1,436,112 |
| Recycling user fee | \$0 |
| Special levy | \$0 |
| Sale of recyclables | \$0 |
| Large item charges | \$0 |
| [Other] | \$0 |
| [Other] | \$0 |
| [Other] | \$0 |
| Total revenue | \$1,436,112 |

PART D: Base Year "Cost of Service" Rate Scenarios

Rates reflect current costs and current MSW volume; costs do not include yard waste program
PAYT Options

Option A: Unit-Based Pricing (pay-by-the-bag)

Total Program Costs / ((landfilled tonnage *2000 lbs.) / 30 lb.)

\$2.01 per bag or can

Rates
Per-unit-fee

Option B: Fixed & Variable cost component

Fixed component:

(Total fixed costs / number of households) / 12 months

\$8.52

Monthly Rate

Variable component:

(Total variable costs / bags and cans generated)

\$0.60

Per unit fee:

Bags generated: 1,922,267

Option C: Two-Can Limit with excess trash fee
Fixed component plus disposal for 2 cans trash

(Option B Monthly rate)+ (Option B 2 cans fee x 4.3 weeks)

\$13.67

Monthly Rate:

\$8.52

\$5.14

Excess Trash Can Fee:

\$0.60

Option D: Three-Can Limit with excess trash fee
Fixed component plus disposal for three cans/week

(Option B monthly rate) + (Option B 3 cans fee x 4.3 weeks)

\$16.24

Monthly Rate:

\$8.52

\$7.72

Excess Trash Fee:

\$0.60

PART E: Revenue Generation Scenarios

Option A: Unit-Priced Revenue

Base Year:
Existing MSW volume: 28,834
Disposal fee/ton: 30
Unit size(lbs): 1,922,267
Number of units:

Base Year:
MSW Collection Cost: \$2,713,282
MSW Disposal Cost: \$1,150,000

PAYT Year:
Administrative costs \$5,000

Scenario 1:
Reduction: 20.00%
Unit Price: \$1.50
Units: 1,537,813

Scenario 2:
Reduction: 30.00%
Unit Price: \$1.50
Units: 1,345,587

Scenario 3:
Reduction: 40.00%
Unit Price: \$1.50
Units: 1,153,360

Scenario 4:
Reduction: 50.00%
Unit Price: \$1.50
Units: 961,133

Revenue Monthly: \$192,227
Annual: \$2,306,720

Revenue Monthly: \$168,198
Annual: \$2,018,380

Revenue Monthly: \$144,170
Annual: \$1,730,040

Revenue Monthly: \$120,142
Annual: \$1,441,700

PAYT Reduced Program costs: \$3,638,282

PAYT Reduced Program costs: \$3,523,282

PAYT Reduced Program costs: \$3,408,282

PAYT Reduced Program costs: \$3,293,282

Excess/shortfall: (\$1,331,562)

(\$1,504,902)

(\$1,678,242)

(\$1,851,582)

Option B: Fixed Monthly Rate and Unit Disposal Fee

Base Year

| | |
|----------------------|-------------|
| <u>Base Year</u> | |
| MSW Collection Cost: | \$2,713,282 |
| MSW Disposal Cost: | \$1,150,000 |

| | |
|-----------------------------|--------------------|
| MSW Collection Cost: | \$2,713,282 |
| MSW Disposal Cost: | \$1,150,000 |

30
4 033 267

26529

20.00%

20.00%
\$5.00

\$0.50

\$0.00
537,813

1,537,813

4437 E4E

\$132,645
\$1504,740

\$1,591,740

\$166,300

\$2,360,647

\$3,638,282

(\$1,277,634)

\$5,000

40.00%

40.00%
\$5.00

\$5.00
\$0.50

153.360

1000

5132,645

591,740

5576,680

450 477

168,420

408,282

239,862

50.00%
\$5.00

\$5.00
\$0.50

\$0.50
961 133

961,133

\$132,645

1,591,740

\$480,567

072.307

100,000,000

3,293,282

11,220,975

PART E: Revenue Generation Scenarios

Option C: Two-Can Limit with excess trash fee
Fixed component plus disposal for 2 cans trash

| Base Year | | Base Year | |
|-------------------|-----------|----------------------|-------------|
| MSW volume: | 28,834 | MSW Collection Cost: | \$2,713,282 |
| Disposal fee/ton: | \$39.88 | MSW Disposal Cost: | \$1,150,000 |
| Unit size(lbs): | 30 | Included units: | 275,901.6 |
| Number of units: | 1,922,267 | Excess units: | -83,674.3 |
| Households: | 26,529 | | |

| Scenario 1 (10% Reduction): | | Scenario 2 (15% Reduction): | |
|-----------------------------|-----------|-----------------------------|-----------|
| Monthly rate: | \$8.00 | Monthly rate: | \$8.00 |
| Unit fee: | \$1.00 | Unit fee: | \$1.00 |
| Excess units: | (615,124) | Excess units: | (711,237) |
| Input unit sales: | 0 | Input unit sales: | 0 |

| | | | |
|-------------|-------------|-------------|-------------|
| Revenue: | | Revenue: | |
| Monthly: | \$212,232 | Monthly: | \$212,232 |
| Annual: | \$2,546,784 | Annual: | \$2,546,784 |
| Unit sales: | \$0 | Unit sales: | \$0 |

| | | | |
|---------------------|---------------|---------------------|---------------|
| Total: | \$2,546,784 | Total: | \$2,546,784 |
| Program Costs: | | Program Costs: | |
| Fixed costs: | \$2,713,282 | Fixed costs: | \$2,713,282 |
| Disposal costs: | \$1,034,910 | Disposal costs: | \$977,415 |
| Program costs: | \$3,753,192 | Program costs: | \$3,695,697 |
| Excess/(shortfall): | (\$1,206,408) | Excess/(shortfall): | (\$1,148,913) |

| Scenario 5 (30% Reduction): | | Scenario 6 (35% Reduction): | |
|-----------------------------|-----------|-----------------------------|-------------|
| Monthly rate: | \$8.00 | Monthly rate: | \$8.00 |
| Unit fee: | \$1.00 | Unit fee: | \$1.00 |
| Excess units: | (999,577) | Excess units: | (1,095,880) |
| Input unit sales: | 0 | Input unit sales: | 0 |

| | | | |
|-------------|-------------|-------------|-------------|
| Revenue: | | Revenue: | |
| Monthly: | \$212,232 | Monthly: | \$212,232 |
| Annual: | \$2,546,784 | Annual: | \$2,546,784 |
| Unit sales: | 0 | Unit sales: | 0 |

| | | | |
|---------------------|-------------|---------------------|-------------|
| Total: | \$2,546,784 | Total: | \$2,546,784 |
| Program Costs: | | Program Costs: | |
| Fixed costs: | \$2,713,282 | Fixed costs: | \$2,713,282 |
| Disposal costs: | \$804,930 | Disposal costs: | \$747,435 |
| Program costs: | \$3,523,212 | Program costs: | \$3,465,717 |
| Excess/(shortfall): | (\$976,428) | Excess/(shortfall): | (\$918,933) |

PAYT Year
Administrative costs \$5,000

| Set-out Level(cans) | %-age of households |
|---------------------|---------------------|
| 1 | 30.00% |
| 2 | 30.00% |
| 3 | 20.00% |
| 4 | 20.00% |
| 5 | 20.00% |
| 6 | 20.00% |
| 7 | 20.00% |

| Scenario 3 (20% Reduction): | | Scenario 4 (25% Reduction): | |
|-----------------------------|-----------|-----------------------------|-----------|
| Monthly rate: | \$8.00 | Monthly rate: | \$8.00 |
| Unit fee: | \$1.00 | Unit fee: | \$1.00 |
| Excess units: | (807,350) | Excess units: | (999,577) |
| Input unit sales: | 0 | Input unit sales: | 0 |

| | | | |
|-------------|-------------|-------------|-------------|
| Revenue: | | Revenue: | |
| Monthly: | \$212,232 | Monthly: | \$212,232 |
| Annual: | \$2,546,784 | Annual: | \$2,546,784 |
| Unit sales: | \$0 | Unit sales: | \$0 |

| | | | |
|---------------------|---------------|---------------------|---------------|
| Total: | \$2,546,784 | Total: | \$2,546,784 |
| Program Costs: | | Program Costs: | |
| Fixed costs: | \$2,713,282 | Fixed costs: | \$2,713,282 |
| Disposal costs: | \$919,920 | Disposal costs: | \$862,425 |
| Program costs: | \$3,638,202 | Program costs: | \$3,580,707 |
| Excess/(shortfall): | (\$1,091,418) | Excess/(shortfall): | (\$1,033,923) |

| Scenario 7 (40% Reduction): | | Scenario 8 (45% Reduction): | |
|-----------------------------|-------------|-----------------------------|-------------|
| Monthly rate: | \$8.00 | Monthly rate: | \$8.00 |
| Unit fee: | \$1.00 | Unit fee: | \$1.00 |
| Excess units: | (1,191,804) | Excess units: | (1,287,917) |
| Input unit sales: | 0 | Input unit sales: | 0 |

| | | | |
|-------------|-------------|-------------|-------------|
| Revenue: | | Revenue: | |
| Monthly: | \$212,232 | Monthly: | \$212,232 |
| Annual: | \$2,546,784 | Annual: | \$2,546,784 |
| Unit sales: | 0 | Unit sales: | 0 |

| | | | |
|---------------------|-------------|---------------------|-------------|
| Total: | \$2,546,784 | Total: | \$2,546,784 |
| Program Costs: | | Program Costs: | |
| Fixed costs: | \$2,713,282 | Fixed costs: | \$2,713,282 |
| Disposal costs: | \$689,940 | Disposal costs: | \$632,445 |
| Program costs: | \$3,408,222 | Program costs: | \$3,345,727 |
| Excess/(shortfall): | (\$861,438) | Excess/(shortfall): | (\$812,942) |

Expected PAYT Reduction
Scenario: Reduction Trash(tons) Cost Units

| Scenario | Reduction | Trash(tons) | Cost | Units |
|----------|-----------|-------------|-----------|-----------|
| 1 | 10% | 25,951 | 103,491.0 | 1,730,040 |
| 2 | 15% | 24,509 | 97,741.4 | 1,633,927 |
| 3 | 20% | 23,067 | 91,991.9 | 1,537,813 |
| 4 | 25% | 21,625 | 86,242.9 | 1,441,700 |
| 5 | 30% | 20,184 | 80,492.9 | 1,345,587 |
| 6 | 35% | 18,742 | 74,743.9 | 1,249,473 |
| 7 | 40% | 17,300 | 68,994.0 | 1,153,360 |

Option D: Three-Can Limit with excess trash fee
Fixed component plus disposal for 3 cans trash

PAYT Year
Administrative costs \$5,000

Potential PAYT Reduction
Scenario: 1 2 3 4 5 6 7
Reduction 10% 15% 20% 25% 30% 35% 40%
Trash(tons) 25,951 24,509 23,067 21,626 20,184 18,742 17,300
Costs \$1,034,910 \$977,415 \$919,920 \$862,425 \$804,930 \$747,435 \$689,940
Units 1,730,040 1,633,927 1,537,813 1,441,700 1,345,587 1,249,473 1,153,360

Base Year
MSW volume: 28,834
Disposal fee/ton: \$39.88
Unit size(lbs): 30
Number of units: 1,922,267
Households: 26529

Base Year Trash Units
Included: 413,852
Excess: 0
Total: 2,919,587

Base Year
MSW Collection Cost: \$2,713,282
MSW Disposal Cost: \$1,150,000
Included units: 2759016
Excess units: -836749.3
Total: 2,919,587

Base Year
MSW Collection Cost: \$2,713,282
MSW Disposal Cost: \$1,150,000
Included units: 2759016
Excess units: -836749.3
Total: 2,919,587

Scenario 1 (10% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,189,547)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: \$0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$1,034,910
Disposal costs \$3,753,192
Program costs: \$3,753,192
Excess(shortfall): (\$898,060)

Scenario 2 (15% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,285,660)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: \$0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$977,415
Disposal costs \$3,685,897
Program costs: \$3,685,897
Excess(shortfall): (\$830,565)

Scenario 3 (20% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,381,773)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: \$0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$919,920
Disposal costs \$3,638,202
Program costs: \$3,638,202
Excess(shortfall): (\$773,070)

Scenario 4 (25% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,574,000)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: \$0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$862,425
Disposal costs \$3,580,707
Program costs: \$3,580,707
Excess(shortfall): (\$715,575)

Scenario 5 (30% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,574,000)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: 0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$804,930
Disposal costs \$3,523,212
Program costs: \$3,523,212
Excess(shortfall): (\$658,090)

Scenario 6 (35% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,670,113)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: 0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$747,435
Disposal costs \$3,465,717
Program costs: \$3,465,717
Excess(shortfall): (\$600,565)

Scenario 7 (40% Reduction):

Monthly rate: \$9.00
Unit fee: \$0.50
Excess units: (1,766,227)
Input unit sales: 0

Revenue: \$238,761
Monthly: \$238,761
Annual: \$2,865,132
Unit sales: 0

Total: \$2,865,132

Program Costs: \$2,713,282
Fixed costs \$689,940
Disposal costs \$3,408,222
Program costs: \$3,408,222
Excess(shortfall): (\$543,090)